



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,513	10/31/2005	Richard William Ross Urwin	08180002US	6175
7055 7590 03/12/2007 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER HOLMAN, JOHN D	
			ART UNIT 3643	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/12/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/12/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

**Office Action Summary**

Application No.

10/524,513

Applicant(s)

URWIN, RICHARD WILLIAM ROSS

Examiner

John D. Holman

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 8, 10, 12-14, 16, 18, 28, 30, 32-34, 36, 38, and 41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 11, 15, 17, 19-27, 29, 31, 35, 37, 39, and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/14/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Applicant's election with traverse of Group I, claims 1-7, 9, 11, 15, 17, 19-27, 29, 31, 35, 37, and 39-40, in the reply filed on 12/22/2006 is acknowledged. The traversal is on the ground(s) that the claims were not properly considered under the "special technical feature" standard. This is not found persuasive because of the following:

PCT Rule 13.2 states:

**13.2 *Circumstances in Which the Requirement of Unity of Invention Is to Be Considered Fulfilled***

Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

**37 CFR 1.475 states in part:**  
**UNITY OF INVENTION**

§ 1.475 Unity of invention before the International Searching Authority, the International Preliminary Examining Authority and during the national stage.

(a) An international and a national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("requirement of unity of invention"). Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

(b) An international or a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:

(1) A product and a process specially adapted for the manufacture of said product; or

Art Unit: 3643

- (2) A product and process of use of said product; or
- (3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or
- (4) A process and an apparatus or means specifically designed for carrying out the said process; or
- (5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process.

**(c) If an application contains claims to more or less than one of the combinations of categories of invention set forth in paragraph (b) of this section, unity of invention might not be present.**

As evidenced in the following office action and in the international search report, the claims "do not" define a contribution over the prior art therefore unity of invention has not been fulfilled. Further the application had contained claims to more than one of the combination of categories of invention as set forth in 37 CFR 1.475 (b)(2) i.e. it contained two independent product claims 1 and 21 and a process of use claim 41. It is also on this basis that examiner maintains that unity is not present.

The requirement is still deemed proper and is therefore made FINAL.

Claims 8, 10, 12-14, 16, 18, 28, 30, 32-34, 36, 38, and 41 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected method of propelling a projectile and species relating to Group I, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 12/22/2006.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3643

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 11, 15, 17, 19-27, 31, 35, 37, 39, and 40 are rejected under 35

U.S.C. 102(b) as being anticipated by Rostocil (US 3318244).

Regarding claim 1, Rostocil discloses a shaped charge comprising a projectile (16), a shaped charge (9) including a cavity (not referenced) in an external face of the charge, and a metal liner (10) between the shaped charge (9) and the projectile (16) to form a jet of liner material on detonation of the shaped charge. See figure 1 and column 3, lines 24-27 and 59-62.

Regarding claim 2, Rostocil discloses a shape charge wherein the shaped charge (9) is housed in a casing forming a cartridge (1). See figure 1.

Regarding claim 3, Rostocil discloses a shape charge wherein the projectile (16) is retained within the cavity in the shape charge. See figure 1.

Regarding claim 4, Rostocil discloses a shape charge wherein the rear end (18) of the projectile (16) includes a layer of temperature resistant material. See column 4, lines 10-15.

Regarding claim 5, Rostocil discloses a shape charge wherein the temperature resistant material is tungsten. See column 4, lines 10-15.

Regarding claim 6, Rostocil discloses a shape charge wherein the projectile (16) includes an aperture facing the liner (10). See figure 1.

Regarding claim 7, Rostocil discloses a shape charge wherein the projectile (16) includes stabilization means. See column 6, lines 61-65.

Regarding claim 11, Rostocil discloses a shape charge wherein the projectile is a bullet. See figure 1.

Regarding claim 15, Rostocil discloses a shape charge wherein the cavity of the shape charge has a cylindrical shape. See figure 2 or 3.

Regarding claim 17, Rostocil discloses a shape charge wherein the explosive of the shaped charge is arranged to be detonated by a firing pin (29). See figure 4.

Regarding claim 19, Rostocil discloses a shape charge wherein the projectile (16) has a diameter which is less than the widest cross-section of the cavity. See figure 1, 2, and 10.

Regarding claim 20, Rostocil discloses a shape charge wherein the liner (10) is a ballistic disk. See figure 1.

Regarding claim 21, Rostocil discloses shape charge comprising a projectile (16), a body of high explosive material (9) forming a charge and including an internal cavity, and a metal liner (10) lining the interior of the cavity. See figure 1 and 10.

Regarding claim 22, Rostocil discloses a shape charge wherein the shaped charge (9) is housed in a casing forming a cartridge (1). See figure 1.

Regarding claim 23, Rostocil discloses a shape charge wherein the projectile (16) is retained within the cavity in the shape charge. See figure 1.

Regarding claim 24, Rostocil discloses a shape charge wherein the rear end (18) of the projectile (16) includes a layer of temperature resistant material. See column 4, lines 10-15.

Regarding claim 25, Rostocil discloses a shape charge wherein the temperature resistant material is tungsten. See column 4, lines 10-15.

Regarding claim 26, Rostocil discloses a shape charge wherein the projectile (16) includes an aperture facing the liner (10). See figure 1.

Regarding claim 27, Rostocil discloses a shape charge wherein the projectile (16) includes stabilization means. See column 6, lines 61-65.

Regarding claim 31, Rostocil discloses a shape charge wherein the projectile is a bullet. See figure 1.

Regarding claim 35, Rostocil discloses a shape charge wherein the cavity of the shape charge has a cylindrical shape. See figure 2 or 3.

Regarding claim 37, Rostocil discloses a shape charge wherein the explosive of the shaped charge is arranged to be detonated by a firing pin (29). See figure 4.

Regarding claim 39, Rostocil discloses a shape charge wherein the projectile (16) has a diameter which is less than the widest cross-section of the cavity. See figure 1, 2, and 10.

Regarding claim 40, Rostocil discloses a shape charge wherein the liner (10) is a ballistic disk. See figure 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3643

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rostocil (US 3318244) in view of Sullivan (US 4700630).

Claims 9 and 29 differ from Rostocil's shape charge in calling for the projectile to have dimples or grooves. Sullivan discloses a projectile (1) having grooves (4). See Sullivan figure 12. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Rostocil's shape charge in view of the teachings of Sullivan to include grooves for the purpose of stabilizing the flight of the projectile (column 4, lines 1-4).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John D. Holman whose telephone number is 571 272-2754. The examiner can normally be reached on Monday through Friday 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571 272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 3643

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JDH



PETER M. POON  
SUPERVISORY PATENT EXAMINER

3/5/07